

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0003] with the following amended paragraph:

[0003] ~~Pending~~ U.S. patent application Ser. No. 09/241,159, filed Feb. 4, 1999, and issued as U.S. Patent No. 6,638,654 on October 28, 2003, assigned to the same assignees is hereby incorporated by reference. Pending U.S. patent application Ser. No. 09/241,159 describes a MEMS-based fuel cell as comprising electrode/catalyst/electrolyte materials formed on a micromachined silicon chip which enables the combination of a fuel and oxidant at elevated temperatures to produce continuous electric current. The MEMS-based fuel cell can be either a Solid Oxide (SOFC), Solid Polymer (SPFC), or Proton Exchange Membrane Fuel Cell (PEMFC).

Please delete paragraph [0020]:

~~[0020] Pending U.S. patent application Ser. No. 09/241,149~~

Please replace paragraphs [0021] with the following amended paragraph:

[0021] A Microelectromechanical System (MEMS)-based thin-film fuel cell or stack of fuel cells of either a solid oxide fuel cell (SOFC), a solid polymer fuel cell (SPFC), or a proton exchange membrane fuel cell (PEMFC), utilizing electrode/catalyst/electrolyte or electrode/electrolyte materials which enable the combination of a fuel and oxidant at elevated temperatures to produce continuous electric current is described in ~~pending~~ U.S. patent application Ser. No. ~~09/241,149~~ 09/241,159, now U.S. Patent No. 6,638,654. Fuel manifolds and microflow channels are formed in the host structure/substrate by MEMS-based technology and the electrode/electrolyte/electrode, with or without catalyst layers are formed along with resistive heaters and integrated control circuitry by thin-film deposition technology and microfabrication approaches in combination with MEMS fabrication techniques. Thus, a miniature power source comprised of fuel cells which yield zero emissions (when operated on hydrogen and air) is disclosed. The electrical current generated from each cell is drawn away with an interconnect and support structure integrated with the gas manifold. The strengths of microelectronics, fabrication, micromachining approaches, and microelectro-mechanical systems technology are combined with thin-film deposition techniques for the purpose of producing a MEMS-based,

thin-film miniature fuel cell. The MEMS-based fuel cell uses materials that are flexible and therefore can utilize either a solid oxide, solid polymer, or proton exchange membrane electrolyte material system.